# BULLETIN DU MUSEUM NATIONAL D'HISTOIRE NATURELLE <br> $2^{\text {e }}$ Série - Tome $36-N^{0} 6,1964$ (1965), pp. 797-811. <br> A SMALL COLLECTION OF OPILIONES <br> FROM THE IVORY COAST <br> OF WEST AFRICA 

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A well preserved collection of Harvest spiders from leaf humus taken at the base of various shrubs (Bauhinia, Cussonia, Crossopteryx) and palm trees in savannah vegetation at Lamto, 20 km N . W. of Singrobo midway between Tiassalé and Toumodi, has been sent to me by Mr J.-F. Jézéquel of the Muséum National d'Histoire Naturelle, Paris.

This excellent material has been identified as belonging to nine species, six of which are represented by forms new to science, while in addition three new genera have been creatcd.

The list of the fauna is as follows :

## Palpatones.

1. Dacnopilio quadridentatus n. sp.

## Laniatores.

Family Phalangodidae.
2. Iyobiantes spinipalpis n. sp.
3. Metalacurbs pilliersi (Roewer).

Family Assamiidae.
4. Monorhabdium singulare Loman.
5. Ivocoryphus jezequeli n. sp.
6. Neocoryphus niger n. sp.
7. Seuthesplus perarmatus n. sp.
8. Sassandria tenuipes n. sp.
9. Pungoiella bifurcata Roewer.

I have to thank very sincerely Mr J.-F. Jézéquel and his collaborators who assisted him in the field, for placing this interesting material at my disposal for study.

1. Natal Museum, Pietermaritzburg.

# Suborder Palpatohes. 

Fam. Phalangiidae.
Subfan. Phalangiinac
Genus Dacnopilio Roewer.

## Dacnopilio quadridentatus n. sp. (Text-figs. 1-4.

Holotype, 1 ot, Galerie du Bandama, Lamto, collected 6-vi-63.
Colour : light reddish brown, coxae of ventral surface light ycllow brown, apices of the spines and granules black; chelicerae and tarsus of pedipalp yellow, tarsi of legs brown with a greenish tinge.

Dorsal surface. Carapace anterior to the ocular tubercle as in fig.1, all the granules small, not dentiform, subequal, ocular tubercle dorsally with a pair of small posterior and anterior spines, the posterior considerably longer than the anterior pair, in addition a third pair of small spines on the posterior surface of the tubercle; the granules of abdominal segments small, equal-sized, the transverse rows passing right across, the first row (on posterior margin of cephalic area) regular and straight, those of the next two segments irregular; sinuous, duplicated in the middle, the remaining rows regular and almost straight.

Ventral surface. All coxae uniformly but not densely covered with minute granules equally numerous on I, II and IV, somewhat more numerous and a little larger on III which is much reduced in size and decply sunk between II and IV, fig. 4; genital operculum with similar granules at the sides, the middle without.

Chelicerae of moderate size as in fig. 2 seen from outer side; segment II dorsally at extreme base with a cluster of $4-5$ minute black granules, dorsal surface of scgment I in its distal two-thirds uniformly but not thickly ecvered with similar granules.

Pedipalp. Trochanter-tibia as in fig. 3 seen from outer side; patella dorsally with a regular inner and outer row of $5-6$ minute granules each ; tibia with a few minute granules dorsally near its base.

Legs. I a little more incrassate than the others, especially femurtibia, these segments with rows of equal sized spines: legs IIl missing, femora of II and IV with spine rows, those of patella and tibia absent in II, obsolete in IV ; tarsus I with 50 , IV with 47 segments.

Dimensions. Total length 5 ; chelicerae 5.8, pedipalp 8.2: leg I 33 , II 55, IV 53 mm .

I assume that this species should be assigned to the genus Dacropilio in view of the presence of a minute tooth on each side of the lamella just above the insertion of the cheliccra. The species differs very markedly from 1 ). armatus and its variety obscurior, the only other species known from the Ivory Coast; it appears on the other hand to be most closely


Fig. 1-4. - Dacnopilio quadridentatus n. sp. $\underset{\text { or }}{ }$. 1, anterior margin of carapace; 2, chelicera, outer view; 3, trochanter-tibia of pedipalp; 4, coxæ I-IV and genital operculum.
related to D. kraepelini Roewer, which was described from Oran, North Africa.

## Note on the reduction of the third palr of coxae in D. quadridentatus.

The unusual reduction in size of the coxae of legs III in this species, fig. 4, is very remarkable; as can be seen from the illustration, the coxae on both sides are strongly and equally reduced in size while in normal specimens they are equal to those of II and IV or may even be slightly larger than these. In the type specimen in question the coxac appear to have sunk down between those of legs II and IV and are narrow and inconspicuous although retaining their full quota of numerous small granules as in the other coxae. The narrow ring joining the trochanter to the distal end of the coxa, though present in the normal coxae, is absent in the case of the third pair.

The malformation in question can only be attributed to the loss of both of the third pair of legs in the early life of the individual ; as is well known, the legs in this order of Arachnida are fairly easily lost and once lost are not regenerated; living Opilionids of the suborder Palpatores have been observed attempting to walk with only a single pair of legs, the remaining three pairs having been lost.

A large number of specimens of a related species of Palpatores, Rhampsinitus leighi Pocock, in the collection of the NataL Museum, were examined; three individuals were found in each of which one of the coxae was markedly reduced in size in relation to the others, though not by any means to the same extent as in the specimen of Dacnopilio quadridentatus illustrated in fig. 4. The reduction was also limited to a single coxa on one or other side of the body while the case of a double and cqual reduction on both sides, as in the type of D. quadridentatus, is a remarkable and unusual coincidence. It can only be explained by assuming that the legs of the third pair were lost on each side simultancously at an early stage in the growth of the Opilionid.

## Dacnopilio sp.

A femalc specimen with 3 pairs of minute spines on the ocular tubercle, Galerie du Bandama, Lamto, collected 20.ıv.63.

## Suborder Laniatores.

Fam. Phalangodidae.
Subfam. Biantinae.
Ivobiantes n. genus.
With the tarsal formula of Metalacurbs Roewer but with a long spine in the middle of free tergite III instead of II ; pedipalp femur with a
row of 5-6 granules ventrally in basal half in addition to a long inner spine in basal two-fifths; tibia with 3 spines on each side, a seventh large basal spine in middle of ventral surface, tarsus with 2 spines on each side. Legs unmodified, tarsal segments $4: 9: 5: 6$, distitarsus of I and II, 2 and 3 respectively. The genus has the facies of typical Biantinae, such as Biantes and Metabiantes and is perhaps a connecting link between these and the Lacurbs group of genera. If the specimens are females they are much smaller than those of Metalacurbs, less strongly built, with longer and more slender legs which are in general smooth and unspined.

Genotype : Ivobiantes spinipalpis n. sp.

Ivobiantes spinipalpis n. sp. (Text-figs. 8, 9.)
Holotype 1 ठ (?), paratype 1 § (?), Niapoyo, Soubré, collected 12-1111963.

Colour. Dorsal surface dark blackish-brown, the divisions of the areas ycllow, carapace predominantly reticulate blackish, in parts yellow. Ventral surface dark brown, a little lighter than the dorsum, coxae with blackish reticulation, abdominal segment with blackish transverse bands. Chelicerae yellow, pedipalps and legs indistinct yellow with ill-defined brown annulations, femora and patellae of IIl and IV brown.

Dorsal surface as in fig. 8, area III with a pair of long slender spines, more than twice as long as the enlarged pair of II which are again a little longer than those of IV ; lateral margin of dorsal scute with a large pointed tooth opposite area III and a row of small indistinct granules. Free tergite lII with a long spine in the middle much longer than any others of the free tergites but considerably shorter than those of area III; anal operculum (not seen in fig. 8) with a row of 3 short pointed teeth in the middle.

Ventral surface. Coxae quite smooth except IV which is roughened laterally with granules and 1 large pointed tooth just anterior to the middle (seen from above, fig. 8) ; sternites with a narrow transverse strip of minute granules.

Chelicerae. Segment 1 quite smooth or with 1-2 minute granules in the dorsal depression which is situated far backwards; 11 with a row of 4-5 large but low rounded tubercles on its anterior surface.

Pedipalp. Trochanter without, femur in basal two-fifths with a ventral row of 5-6 small triangular teeth or granules, the most distal more or less isolated from the others which are equidistant; inner surface with 2 spines, one much longer than the other, fig. 9 , the shorter similar to the ventral teeth; patelia very long and slender, a little more than half length of femur, with 1 long and 1 short ventro interior spines at extreme apex; tibia two-thirds length of patella, $11 / 2$ times as long as tarsus, with 3 long spines on each side, another much smaller one at extreme inner apex; an even longer spine than the lateral ones at extreme base in the middle of the ventral surface (tibia thus with 7 long spines);


Fig. 5-9. - Metalacurbs villiersi (Roewer) or. 5, dorsal surface of body; 6, leg IV, outer view; 7, lateral margin of coxa IV from above. Ipobiantes spinipalpis n. sp. 8, dorsal surface of body ; 9, pedipalp femur and trochanter from below:
tarsus with 2 long spines on each side not much shorter or more slender than the claw, another minute spine at extreme apex.

Legs for the most part unarmed, smooth as in most species of Biantes, Metabiantes and allied genera; femur IV ventrally near its apex and patella IV at its dorso-interior apex with a small tooth-like spine; metatarsi III and IV with numerous pseudoarticulations; tarsal segments 4:9:5:6.

Dimensions. Total length 4, greatest width 1.9 , leg lV 10.5 mm .

## Genus Metalacurbs Roewer.

Metalacurbs villiersi (Roewer) (Text-figs. 5-7.)
Prolacurbs silliersi Roewer 1949. Bull. Institut frang. Afrique Noire. XV (2), p. 609, fig. 5.

Prolacurbs villiersi is quite unlike the type species singularis Roewer and being much more similar to Metalacurbs, l have transferred silliersi to this genus together with Roewer's other two species, oedipus and cornipes.

The $\delta$ and $\circ$ 早 before us agree very closely with Roewer's description and figures of Metalacurbs silliersi; the pedipalp of $\delta$ without a ventral seta on trochantcr, femur with $2-3$ small ventral granules in addition to a ventro-medial spine in basal third; tarsus with 2 spines on each side, a very small additional (apical) spine on inner side. The greatest width of abdomen in the $q$ much less than in the $\delta$ and not suddenly expanded behind the carapace, fig. 5 , but subparallel throughout.

Dimensions. §, total length (incl. chelicerae) 5.3, greatest width 3, leg IV 9.1 mm ; of ㅇ, total length 4.8 , greatest width 2.3 , leg IV 8.9 mm .

> A key to the genera of the Lacurbs group of Biantinae which have 4 or more segments for tarsus I.

1. Tarsus I with 5 segments. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 2
-Tarsus I with 4 segments.................................................. 3
2. Tarsi III and IV with more than 6 segments, usually 8 and 9 respectively. Heterolacurbs Roewer

- Tarsi III and IV with 5 and 6 segments respectively. . . . . Lacurbs Simon

3. Areas III and IV with an equal sized pair of moderately enlarged teeth; free tergite II without a large spine in the middle; femur IV without enlarged tooth-like spines ventrally................ Prolacurbs Roewer

- Area III with a pair of enlarged tooth-like spines, IV without or with a pair of granules only; free tergite II with an elongate tooth-like spine in the middle; femur of leg IV with at least 1 enlarged spine ventrally.. \&

4. Free tergite III with a single large spine in the middle; femur IV with a row of enlarged spines ventrally; pedipalp-patella spined. Metalacurbs Roewer

- Free tergite III with a very large double spine in the middle; femur IV with a single large tooth at ventral apex; pedipalp-patella unspined......

Eulacurbs Roewer

Fam. Assamiidae<br>Subfam. Erecinae.<br>Genus Monorhabdium Loman.

## Monorhabdium singulare Loman. (Text-fig. 10.)

M. singulare Loman 1902. Zool. Jahrb. Syst. 16, p. 191, fig. 17.
 1-vı11-63:2 OY Soubré, Niapoyo, collected 111-1962.

The above specimens agree closely with $M$. singulare Loman rather than with the only other species of the genus, $M$. echinatum Roewer which has been recorded from the Ivory Coast ; it is possible that these two species are conspecific. A male of the above (29-vn-63) differs from Roewer's illustration in his monograph (fig. 300, p. 281) in the width of the dorsal scute at its posterior margin being almost twice the anterior width, fig. 10. The enlarged lateral tooth of coxa IV is also smaller and nearer the middle of the segment than in Roewer's figure of the type. Femur of pedipalp with a conspicuous pointed tooth at inner apex and 12 triangular teeth on the basal three-fourths of the ventral surface; trochanter with a single larger ventral tooth.

Colour pattern of dorsal surface as in fig. 10, the darker parts being blackish-brown, the lighter parts yellow.

## Ivocoryphus n. genus.

Ocular tubercle with a pair of fairly long sharp spines; anterior margin of carapace with the inner of the pair of lateral tubercles much longer than the outer or the median one; areas I-V with a transverse row of enlarged subequal spine-like tubercles, the middle pair in areas I-IV slightly larger than the others; free tergites with a similar row of large equal sized spines; segment I of chelicerae with small granules dorsally in distal half.

Legs unarmed, coxa IV laterally with $3-4$ subequal enlarged toothlike granules. Pedipalp femur without a tooth at inner apex. Tarsal segments $5: 9: 6: 7$, distitarsus of $I$ and II with 2 and 3 segments respectively.

Genotype : Ivocoryphus jezequeli n. sp.
The genus shares characters with both Procoryphus Roewer and Acanthocoryphus Roewer perhaps representing a connecting link between them. It agrees with the former in having a pair of spines on ocular tubercle and in lacking a single large tooth on lateral surface of coxa IV;
it resembles Acanthocoryphus in the tarsal formula and in the relative size of the tubercles of the anterior margin of carapace.

> Ivocoryphus jezequeli n. sp. (Text-figs. 11, 12.)

1 Holotype $\widehat{o}$ (?), 1 paratype $\widehat{o}$ (?), Lamto, collected 15-vi-1963.
Colour : yellow brown with a reddish tinge, blackish reticulation on the carapace, a broad band on each side of dorsal scute and transverse bands on the posterior margins of the dorsal scute and free tergites, blackish; legs in general light olive-green, coxae and trochanters I-III dorsally yellow, coxa IV a little darker ; ventral surface lighter, orange, the posterior sternites darkened.

Dorsal surface. Anterior margin with the inner of the lateral pair of tubercles a third longer than the outer; ocular tubercle transversely oval, a pair of long, widely separated spines near its posterior margin, a number of small granules anterior to them ; carapace with small scattered granules, more numerous laterally. Areas I-IV with transverse rows of 4, 4, 6, 6 enlarged tooth-like granules respectively, the middle pair a little larger, a second irregular row of much smaller granules in front of each row, area $V$ on its posterior margin with 6-8 conspicuous long spines, the middle ones not paired as in areas I-IV; free tergites with a transverse row of 8-10 long spine-like teeth, anal operculum with 2 shorter rows of smaller teeth; lateral margin of dorsal scute with an indistinct row of granules only on posterior half, 2-3 larger granules opposite area III.

Ventral surface. Coxae of stcrnites uniformly covered with small granules, 1 or 2 along the anterior margin of I enlarged, IV (seen from above) armed laterally as in fig. 12, its posterior margin and those of the sternites with a regular transverse row of minute granules.

Chelicera as in fig. 11, the dorsal depression of segment I deep, segment II quite smooth.

Pedipalp. Trochanter armed ventrally with a large blunt conical tooth, femur with a row of 15 similar ventral teeth varying in size, the last bifid, no tooth on inner surface at apex; dorsal surface of femur with a serratiform row of 13 small pointed granules; tibia with a row of 8-9 pointed granules on each ventral edge, in addition a large blunt tooth in the middle of the inner side, a pair of long subapical spines and a large triangular tooth in front of the spine of the outer side; tarsus with a row of $4-5$ pointed teeth and 2 long spines on each side ventrally.

Legs unarmed, long, slender, tarsal segments $5: 9: 6: 7$.
Dimensions. Total length 5.2, pedipalp 3, leg IV 16.5 mm .
The species differs from Procoryphus and perhaps also from Acanthocoryphus in the larger number of tecth on the ventral surface of pedipalp femur ; the granulation of the lateral surface of coxa IV, fig. 12, is unlike that of either genus.


Fig. 10-16. - Monorhabdium singulare Loman ot. 10, dorsal surface of body. Wocoryphus jezequeli n. sp. 11, chelicera, inner view; 12, lateral margin of coxa IV from above. Neocoryphus niger n. sp. 13, lateral margin of coxa IV from above; 14, tubercles of anterior margin of carapace; 15, dorsal surface of body. Seuthesplus perarmatus n. sp. 16, lateral margin of coxa IV from above.

## Neocoryphus n. genus.

Similar in most respects to Irocoryphus but differing as follows : only the middlc pair of spines in areas I-IV enlarged, these more pointed and trianguliform than in Ipocoryphus, some minute granules latcrally to each of these pairs which are of very unequal size, those of IIl much larger than the others being III, II, I, IV, in order of size; area V and free tergites I-III with a transverse row of sharply pointed triangular enlarged granules. Segment I of chelicera quite smooth. Coxa IV laterally with 1 or 2 enlarged but moderate sized granules near its base. Tarsal segments $5: 11-13: 6: 7$.

Genotype : Neocoryphus niger n. sp.

Neocoryphus niger n. sp. (Text-figs. 13-15.)
Holotype $1 \widehat{o}$ (?), paratypes $2 \widehat{o}$ (?), Lamto, collected vill-1963.
Colour. Dorsal surface black, variegated with dull yellow symmetrical markings, carapacc reticulated black; ventral surface, coxae yellow brown with blackish reticulation, sternites black; chelicerae and pedipalps lighter than dorsal surface, with black reticulation; legs dark brown with a greenish tinge.

Dorsal surface as in fig. 15. Anterior margin of carapace with the inner of the two lateral tubercles long and slender, $1 / 4^{-1} / 3$ longer than the outcr, lig. 14 upper anterior margin with a small, rather blunt tooth in the middle; ocular tubercle with a rather long pointed spine modially to each eye; each postero-lateral corner of the ccphalic area with a small round granule and 1 or 2 others near the antero-lateral corner ; enlarged spines of areas I-IV as in generic description, between and also laterally to these 1-2 minute granules; area $V$ with a transverse row of sharp teeth, the middle pair a little larger than the rest ; lateral margin of dorsal scute with an indistinct row of small granules in posterior half ; free tergites with a transverse row of $5-8$ pointed granules.

Ventral surface almost quite smooth, matt, coxa I on its anterior margin with a row of about 4 enlarged granules, II with a row of smaller granules, a regular row of minute granules between coxac II and III and IIl and IV.

Chelicerae with both segments quite smooth.
Pedipalp. Femur ventrally with a row of 13 pointed teeth on its proximal two-thirds, trochanter with a larger conical tooth; patella unarmed; tibia on outer edge with 1 long subapical spine, 1 short tooth distaI to, and 2-3 granules proximal to this spine ; inner edge with 1 short, 2 long, 2 short 1 long, 1 short tooth; tarsus with 2 long spincs on each side, 3-4 shorter teeth between them.

Legs. Coxa IV with a conspicuous tooth on its upper lateral margin,
fig. 13, ncar the base, all legs otherwise unarmed ; tarsal segments 5: 11-13: 6:7; distitarsus of I and I1, 2 and 3 respectively.

Dimensions. Total length (not including chelicerae) 4, pedipalp 2.8 , leg II 19, leg $1 V 14.5 \mathrm{~mm}$.

Additional material. 11 Specimens, Lamto, collected 30-xı1-63; 7, Lamto, collected 11-v1-63; 4, Lamto, collected 24-x11-63; 1 immature, Lamto, collected 27-xi-63; 1 immature, lamto, collected 26 -xı1-63; 2 immature, Lamto, collected 17-1x-63; 2, Lamto, collected 1-x-63; 3, Lamto, collected 18 -vi- $63 ; 2$, Lamto, collected 16 -vir- $63 ; 2$, Lamto, collected 29-vı-63.

> Subfam. Selencinae.
> Genus Seuthesplus Roewer.

## Seuthesplus perarmatus n. sp. (Text-figs. 16-18.)

Holotype, 1 ठ̂, Lamto (Toumodi), 5-vil-1963.
Colour. Dorsal scute blackish brown with an ill-defined yellowish submarginal band on each side giving off short branches inwards at the divisions of the four areas, cephalic area with a short median yellow stripe from behind the ocular tubercle backwards; ventral surface lighter, coxae yellow to reddish-brown, sternites becoming darker posteriorly; legs brown, the segments with a narrow black apical ring; pedipalps and chelicerae similar to the legs but a little lighter.

Dorsal surface. Inner of the two lateral tubercles of the anterior margin of carapace $11 / 2$ times as long and thicker than the outer one which is again much longer than the middle one ; ocular tubercle with a pair of granules anterior to, another pair posterior to the two pointed spines on dorsal surface; cephalic area with a small round granule near each postero-lateral angle, area 1 with 2 small granules laterally to each of the enlarged spines, behind these 2 similar granules on each side; areas 11 and 111 with 2 granules laterally to each of the enlarged spines; area $\mathbb{I}$ with a transverse row of 5-6 tooth-like granules, the middle pair slightly larger, area $Y$ with a row of $8-9$ tooth-like pointed granules, the middle pair a little larger, no enlarged edge-tooth (eck-dorn) at the posterolateral angle of the scute as in nigeriensis Roewer, the edge-tooth being smaller than the others; free tergites 1 and 11 with a pair of cnlarged spincs, the largest of the dorsal surface, 3 shorter teeth between them and 2 or 3 others on each side, the last of the row on each side enlarged but much smaller than the median pair, these segments thus with a row of 10-12 tooth-like granules in all ; tergite 111 with a row of 5 enlarged tooth-like granules, the outer two corresponding to the enlarged pair in I and 11 but much shorter, only a little longer than the 3 teeth between them, in addition, a small edge tooth far removed from the others of the row. Lateral margin of scute with an irregular row of enlarged
granules opposite coxa IV then a space and continued opposite coxae III and II ; coxa IV laterally with a cluster of 6.7 enlarged subequal conical granules, fig. 16.

Ventral surface. Coxa I with an anterior row of 4-5 enlarged, well separated granules, coxae otherwise with very fine matt granulation, sternites with a row of minute granules.

Chelicera as in fig. 17, seen from inner side.


18


Fig. 17-19. - Seuthesplus perarmatus n. sp. 17, chelicera, inner view; 18, inner apex of pedipalp femur. Sassandria tenuipes n. sp. 19, chelicera, inner view.

Pedipalp. Trochanter with 1 ventral tooth a little larger than the 11-12 ventral teeth of the femur which extend almost to its apex; inner apex of femur with a large bifid tooth, fig. 18 ; patella with granular teeth only, tibia in addition to these with a long subapical spine on outer edge, another in basal half of inner edge, tarsus with 2 or 3 spines on each side ventrally.

Legs. Femora of posterior legs almost straight, all legs smooth, tarsal segments 5:11:6:7; in the paratypes those of leg II, 9-12.
Dimensions. Total length 4.5, pedipalp 2.6, leg II 16.3, IV 14.5 mm .
The species though closely allied to nigeriensis is more strongly armed, there being more numerous granules on areas I-IV in addition to the median pair; area $V$ has large tooth-like granules but no enlarged edge tooth;
free tergite III has a much smaller median pair of spines than in I and II instead of being equal as in nigeriensis；the granules of the lateral margin of dorsal scute form an interrupted row instead of two separate clusters and the enlarged granules of lateral surface of coxa IV are larger and more numerous；the dorsal enlargement of coxa I is distinctly granular ； the tarsal segments of legs III and IV are 6 and 7 instead of 7 －and 8 respectively．

Further material：2 おิ龴（？）Bouaké，collected 16－vı11－63； 1 ¢ Lamto
 Lamto（Toumodi）； 1 ふ̂，Bouaké，collected 16－vı11－63； 3 immature， Lamto，collected 17－xı－63； 1 万，Lamto（Toumodi）；19，Lamto（Toumodi）； 4 immature，Lamto，collected $22-\mathrm{x} 1-63 ; 2$ ond $^{\wedge}$ ，ㅇ， 1 immature，Bouaké， collected 16 －vin－63； 6 immature，Lamto，collected 16 －x－63； 1 万，Lamto， collected 26－v1－63．

## Genus Sassandria Roewer．

Sassandria tenuipes n．sp．（Text－fig．19．）
1 Holotype $q(?), 2$ paratypes $9 P$ ，Niapoyo， 30 km N．of Soubré，in forest leaf mould，collected Dec． 1962.

Colour．Dorsal surface indistinctly blackish，the grooves dividing the dorsal scute yellow，cephalic area with blackish reticulation，free tergites indistinctly blackish；coxac of ventral surface yellow brown， lighter than dorsal surfacc，sternites similar to free tergites，chelicerae and pedipals in general yellow with olive green tinge and blackish reticu－ lation，a small distinct black spot at the base of cach spine of tibia and tarsus of pedipalp．Legs with trochanter yellow，remaining segments uniform brown with ill－defined lighter annulations．

Dorsal surface．Inner of the two lateral tubercles of anterior margin of carapace smaller than outer，all five rather short and small；upper anterior border of carapace with a row of small granules，the middle one larger ；ocular tubercle with a pair of small short pointed tubercles pos－ teriorly，anterior to these a pair of more widely separated minute granules． Areas I－V with a transverse row of 4－6 indistinct extremely small granules ； lateral margin of dorsal scute without a row of small granules；free ter－ gites with a transverse row of very small granules；the whole dorsal surface with a fine matt texture，not shiny．

Ventral surface almost completely smooth matt；anterior margin of coxa I with a few enlarged granules in proximal half．

Chelicera as in fig． 19 seen from inner side，both segments quite smooth， II enlarged and inflated．

Pedipaip．Trochanter with 2 small ventral teeth；femur slender and subparallel in side view，ventrally with 16 small triangular teeth occu－ pying the whole length cxcept apical seventh ；patella almost $11 / 2$ times as long as tibia，without spines or teeth ；tibia with 3 large ventral spines，

1 in the middle of ventral surface just proximal to mid point of segment, the other two paired and subequal; tarsus a little shorter than tibia, with 4 spines on each side, the proximal ones subequal, much larger than the 2 distal ones.

Legs long, slender and unarmed; tarsal segments $6: 20: 8: 10$; the numbers in leg II of the paratypes varying from 18-20, of leg IV from 9-11; distitarsus I with 2, distitarsus II with 5 segments.

Dimensions. Total length (chelicera not included) 4; pedipalp 4.5; legs II and IV 28.5 and 24 mm respectively.

## Subfamily Pungoicinae.

Genus Pungoiella Roewer.

## Pungoiella bifurcata Roewer.

P. bifurcata Roewer 1914, Archiv. f. Naturg. 80, fasc. 9, p. 114, figs. $5 a, b$.

1 万, 2 아, Gouela, collected 29-ix-63.

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